

**Work Order ID 122616**

Tuesday, July 22, 2014 8:41:42 AM

**\*122616\***

Page 1

Item ID: D3608-3

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Upper Doubler

Stop

**\*NS2\***

Start Date: 7/21/14 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 7/21/14 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals:

Process Plan: MLJDate: 14-07-23

Tooling:

Date: \_\_\_\_\_

Run Start

**\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N):

Date: \_\_\_\_\_

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	Memo	0.00	DAS 23 9-89	14-08-16
D3608	C				
100			0.00		
<b>*100*</b>	FLOW WATER JET				
Waterjet			0.00		
FLOW CNC Waterjet		1-Cut as per Dwg D3608 Dwg Rev: <u>C</u> Prog Rev: <u>C</u> 2-Deburr if necessary			
<i>304.040</i>					
110	QC2- Inspect parts off machine FAI/FAIB		0.00		
<b>*110*</b>					
QC			0.00		
Quality Control					
120	QC8- Inspect parts - second check		0.00		
<b>*120*</b>					
QC			0.00		
Quality Control				(4)	14-08-16

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only 

Work Order: _____	<b>DISPOSITION</b>			<b>AGAINST DEPARTMENT/PROCESS</b>						
Part No. _____	Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering	<input type="checkbox"/>
NCR No. _____	Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality	<input type="checkbox"/>
	Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other	<input type="checkbox"/>
	Suspected Unapproved	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY									
<b>Landing Gear</b>					<b>General</b>				
Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced	
Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up	
Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure	
Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld	
Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled	
Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>		
Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other	
Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>		<input type="checkbox"/>		
Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>		<input type="checkbox"/>		
Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>		
Wave/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>		

**Work Order ID 122616**

Tuesday, July 22, 2014 8:41:42 AM

**\*122616\***

Page 2

Item ID: D3608-3

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Upper Doubler

Stop

**\*NS2\***

Start Date: 7/21/14 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 7/21/14 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

Identify as per dwg &amp; Stock Location:

SLSOS

0.00

AUG 18 2014

06  
9-89**\*150\***

Packaging

Packaging

Memo

0.00

160

QC21- Final Inspection - Work Order Release

0.00

**\*160\***

QC

Quality Control

Memo

0.00

MLJ 1408-18

MLJ 1408-18

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Date:



## **WORK ORDER NON-COMPLIANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

## Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design <input type="checkbox"/>											
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Handling/Pre <input type="checkbox"/>											
Material <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Offset/Setup <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Transport <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear			General								
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Centre Not Concentric <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>						
Cracks <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>						
Cuffs <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Contamination <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>						
Crushing <input type="checkbox"/>	Burrs <input type="checkbox"/>	Countersink <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>						
Heat Treat <input type="checkbox"/>	Contamination <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>						
Inspection Strip in Tube <input type="checkbox"/>	Countersink <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>							
Marks/Chatter <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>							
Turning Sequence <input type="checkbox"/>	Drawing <input type="checkbox"/>	Finish <input type="checkbox"/>	Misread <input type="checkbox"/>		Other <input type="checkbox"/>						
Wave/Twist in Tube <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Off-set <input type="checkbox"/>								
			Out of Calibration <input type="checkbox"/>								
			Out of Sequence <input type="checkbox"/>								

**Picklist Print**Page 1  
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Tuesday, July 22, 2014 8:41:41 AM

Work Order ID: 122616

**\*122616\***  
**\*D3608-3\***

Parent Item: D3608-3

Parent Item Name: Upper Doubler

Start Date: 7/21/14

Required Date: 7/21/14

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 07-03-26 JLM

IPP Rev:B 08-10-15 preliminary issue DD verified by:EC

IPP Rev:C 08-12-11 rev.A as per dwg DD verified by:EC IPP

Rev:D 10.02.16 rev.B as per dwg DD verified by:EC IPP Rev:E

10.11.17 as per PC1 dwg DD verified by:EC IPP Rev:F 10.11.29 as  
per revC dwg DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA		Purchased		No		100	sf	315.2519	0.7392	3112421		DAS 23	9-89 14-08-16

**\*M304S20GA\***

304/316 .040 Sheet

Location	Loc Qty	Loc Code
MAT020	315.2518948	
m126852	0.31	
m127454	26.1018948	
m128435	119.14	
m129128	6.5	
m129530	19.2	
m129845	144	129845

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only 

Work Order: _____	<b>DISPOSITION</b>			<b>AGAINST DEPARTMENT/PROCESS</b>					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

## FAULT CATEGORY

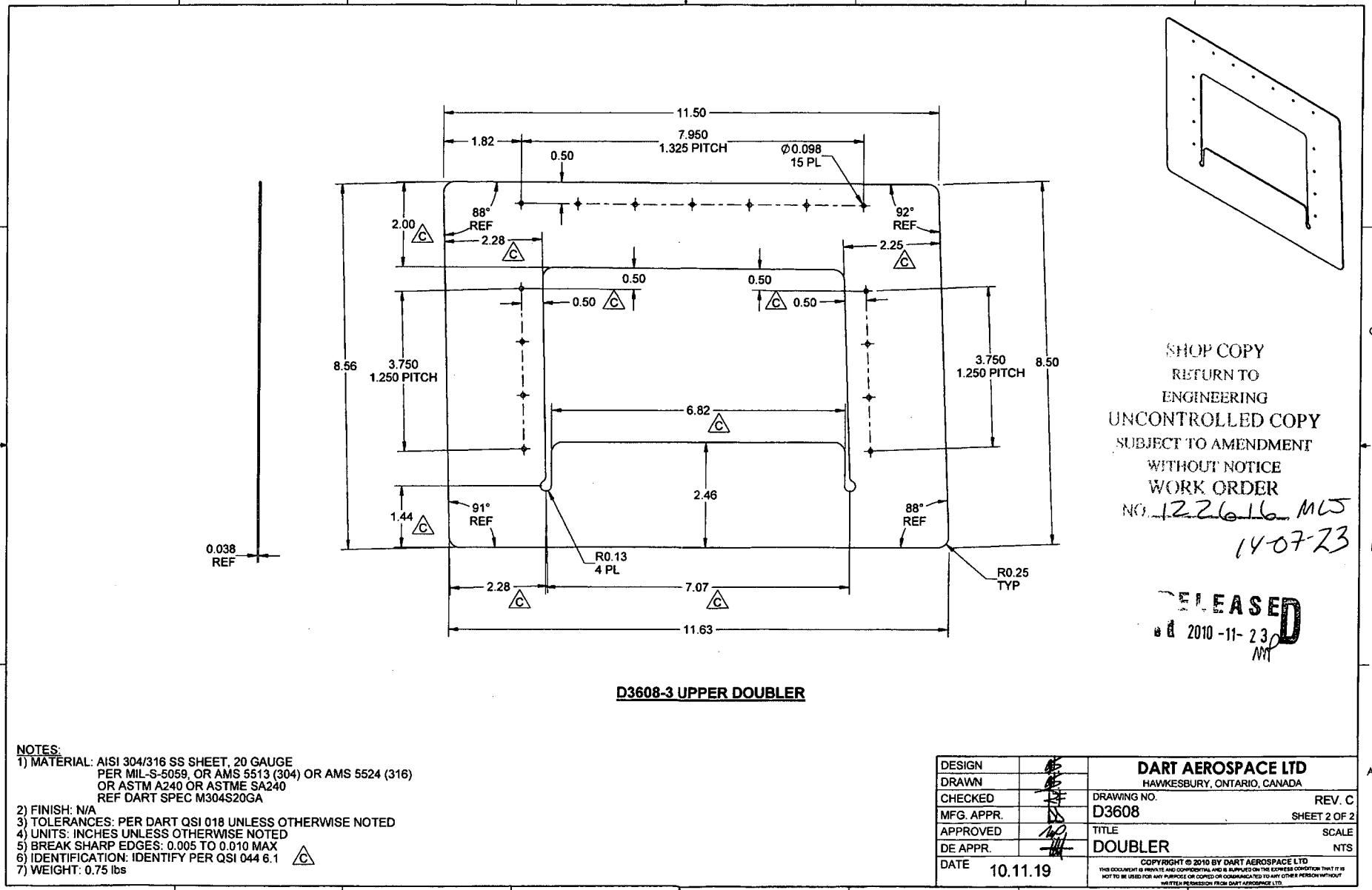
Landing Gear	General					
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>	
	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>	
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>	
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>	
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>		
	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>		
	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>		
	Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>			
	Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>			
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>			
	Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>			

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	122616
<b>Description:</b> Upper Doubler	<b>Part Number:</b>	D3608-3
<b>Inspection Dwg:</b> D3608 <b>Rev:</b> C		<b>Page 1 of 1</b>

## **FIRST ARTICLE INSPECTION CHECKLIST**

<b>DAS</b>	<b>DAS</b>	
<b>Measured by:</b>	<b>23</b> 9.89	<b>Audited by:</b>
<b>Date:</b>	14-08-16	<b>Preliminary Approval:</b>

<b>Rev</b>	<b>Date</b>	<b>Change</b>	<b>Revised by</b>	<b>Approved</b>
A	09.05.11	New Issue	KJ	
B	10.02.18	Dimensions updated per Dwg Rev B	KJ	
C	10.12.21	Dimensions updated per Dwg Rev C	KJ <del>SAC</del>	<del>MM</del>



DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	DRAWING NO. REV. C
MFG. APPR.	<i>[Signature]</i>	D3608 SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE SCALE
DE APPR.	<i>[Signature]</i>	DOUBLER NTS
DATE	10.11.19	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.